UNITED STATES PATENT AND TRADEMARK OFFICE

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10/527,287	03/08/2005	Klemens Breitfuss	AT02 0058 US	2726

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ART UNIT	PAPER NUMBER
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NOTIFICATION DATE	DELIVERY MODE
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

ip.department.us@nxp.com

Office Action Summary

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *04 September 2008*.

2a)☒ This action is **FINAL**.   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-23* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-23* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☐ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application

6)☐ Other: _____.

DETAILED ACTION

1.   The following is a final office action on merits. Amendments received on 9/04/08

have been entered. Claims 1-23 are pending.

Claim Rejections - 35 USC § 112

2.   The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and
> of the manner and process of making and using it, in such full, clear,
> concise, and exact terms as to enable any person skilled in the art to
> which it pertains, or with which it is most nearly connected, to make and
> use the same and shall set forth the best mode contemplated by the inventor
> of carrying out his invention.

3.   Claims 1, 5, 8, 12 and 16 are rejected under 35 U.S.C. 112, first paragraph, as

failing to comply with the enablement requirement. The claim(s) contains subject matter

which was not described in the specification in such a way as to enable one skilled in

the art to which it pertains, or with which it is most nearly connected, to make and/or use

the invention.

4.   As of claims 1, 8, 12 and 16, recite the limitation "such that each of the

transmission start moments coincides with the beginning of one of the waiting time

period". The applicant refers to Fig. 2 and page 9, line, lines 23-34 of the specification,

but the Examiner was not able to understandhow the transmission start moment

coincides with the **beginning** of on the waiting time period. Because looking at fig. 2,

the transmission start moment t5= Td+ 2Tw, so the transmission does not start at the

start of the waiting time period but after the number of waiting time period. This

limitation is not defined in the specification. For the purpose of examination the

Examiner is interpreting the claims, that each of the start moments coincides with the

common selectable discrete time period and a number of waiting time period.

5.   As of claim 5, the limitation "the duration of the inventory command being shorter

than the duration of the transmission of the carrier signal" is not disclosed in the

specification. The applicant refers to fig. 2 and page 9, lines 9-14, which talks about the

inventory command and the carrier signal, but do not talk about the **duration** of the

inventory command and the carrier signal.

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Claim Rejections - 35 USC § 102

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6.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

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        A person shall be entitled to a patent unless –
    (e) the invention was described in a patent granted on an application for
    patent by another filed in the United States before the invention thereof by
    the applicant for patent, or on an international application by another who
    has fulfilled the requirements of paragraphs (1), (2), and (4) of section
    371(c) of this title before the invention thereof by the applicant for patent.
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        The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act

of 1999 (AIPA) and the Intellectual Property and High Technology Technical

Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting

directly or indirectly from an international application filed before November 29, 2000.

Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior

to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

7.   Claims 1-23 are rejected under 35 U.S.C. 102(e) as being anticipated by Ooya et al. (7,187,692).

As of claim 1, Ooya discloses a method of inventorying data carriers by means of a communication station (via a master station communicating data with slave stations; see abstract),

wherein communication station (via a master station 101; see fig. 2) and each data carrier (via a slave station 201; see fig. 2) are brought into communicative connection (see col. 3, lines 61-67; see fig. 2), and

wherein each data carrier brought into communicative connection with the communication station generates a response signal enabling the inventorying of the data carrier after at least one operational condition has been fulfilled (via slave station generating electromagnetic force using the antenna 209 to power the circuit in the slave station and generating a response signal; see col. 4, lines 3-7) and supplies response signal using a transmission start moment that can be chosen from a plurality of transmission start moments (via slave station comprising time number generation unit 207 to generate time slot numbers and time delay numbers which are used in transmitting the response signal to the master station; see col. 4, lines 27-43) that are defined from a carrier signal end moment that coincide with the end of a transmission of a carrier signal from communication station, and wherein each of the transmission start moments results from a sum of a common selectable discrete time period and a number of waiting time periods from the carrier signal end moment, where the number of waiting time periods is defined from the end of the common selectable discrete time period

(Note: from the figure 3 of Ooya it can be seen that Master station 101 transmits a

signal 191 (carrier signal) to the slave stations (301, 401, 501, 601) and then there is

time delay (a common selectable discrete time period) between the transmitted signal

191 and a first slot 1, which is interpreted by the Examiner as common discrete time

period, this time delay can be selected by the person who programs the communication

system of Ooya, so the transmission start moments is defined from the end of the

carrier signal 191) and after that time period each slave station wait until their slot

number (number of waiting time periods) to transmit its identification to the Master

station; see fig. 3; also see col. 33-557) (Note: it is inherent in the transponder reader

system that all the data carriers wait a certain time period before start the transmission

of the identification data. As it is seen in fig. 3, after receiving the ID request signal 191

there is a time delay between the first time slot and the received signal 191, hence this

time delay can also be referred as common discrete delay period, since each data

carrier has this delay before going to the next step which is to wait for their slot number)

and after that an extra time delays in each time slot is waited (number of waiting time

periods) (see fig. 3; also see col. 4, lines 44-57), and

 wherein each data carrier before providing its response signal tests whether another

data carrier is already providing its response signal, and wherein each data carrier

discontinues the provision of its response signal if another data carrier is already giving

its response signal (via slave stations checking if other slave station is transmitting a

response signal and refraining from transmitting a response if any other slave station is

transmitting; see col. 4, lines 51-67).

With respect to the newly added limitation, such that each of the transmission start moments coincides with the beginning of one of the waiting time period, Ooya discloses that a master station transmit a carrier signal (signal 911; see fig. 1), then each transponder wiats a common selectable discrete time period (the time perioed between the end of the carrier signal at the first time slot; see fig. 1), and then transmit the response signal in generated time slot (which are referred as waiting time period) (see col. 1, lines 59-67; also see fig. 1). So the response signal is transmitted after the common selectable time period and a number of waiting time period. And since the transponders are transmitting in their generated time slot, the transmission start moments coincide with the beginning of one of the waiting time period.

As of claim 2, Ooya discloses a method wherein each data carrier already before generating its response signal tests whether another data carrier is giving its response signal, and wherein each data carrier discontinues the generation of its response signal if another data carrier is already giving its response signal (via slave station refraining from transmission if other slave station is transmitting; see col. 4, lines 51-67).

As of claim 3, Ooya discloses a method wherein the response signal given is an identification signal (see col. 5, lines 23-26).

As of claim 4, Ooya discloses a method wherein the number of waiting periods is selected by a random principle (via generation of time numbers using a random number generation circuit; see col. 6, liens 62-65).

As of claim 6, Ooya discloses a method wherein the number wherein the numbers of selectable transmission start moments is greater than the number of data

carriers (Note: Ooya discloses that the number of time slots and time delay can be freely selected, hence number of time slots and time delay can be greater than the slave station 201; see col. 8, lines 40-42).

As of claim 7, Ooya discloses a method wherein a data carrier that has given a response signal cart be sot to an idle station by the communication station, in which idle state no response signal is provided (via slave station not transmitting the response signal after transmitting the ID response signal to the master station; see col. 5, lines 39-42).

As of claim 8 and 12, all the definition explained in claim 1 above also applied to claims 8 and 12, and Ooya further discloses a data carrier (via a slave station 201, see fig. 2) which data carrier is designed for contactless communication with a communication station and which comprises an integrated circuit (Note: Ooya discloses that all the elements in slave station can be provided on a single chip; see col. 8, lines 43-50), which integrated circuit comprises the following means: response signal generation means for generating a response signal (via slave station 201 using the control unit 202 to generate a response signal to the master station 101; see col. 4, lines 22-23) start moment selection means by which a transmission start moment can be selected from a plurality of transmission start moments (via time number generation unit 207 allowing the control unit to generate time slot numbers and time delay numbers; see col. 4, lines 27-32), wherein each of the transmission start moments results from a sum of a common selectable discrete time period and a number of waiting time periods from the predefined moment, where the number of waiting time

periods is defined from the end of the common selectable discrete time period (Note:

from the figure 3 of Ooya it can be seen that Master station 101 transmits a signal 191

to the slave stations (301, 401, 501, 601) and then there is time delay (a common

selectable discrete time period) between the transmitted signal 191 and a first slot 1,

which is interpreted by the Examiner as common discrete time period, this time delay

can be selected by the person who programs the communication system of Ooya) and

after that time period each slave station wait until their slot number (number of waiting

time periods) to transmit its identification to the Master station; see fig. 3; also see col.

33-557) .(Note: it is inherent in the transponder reader system that all the data carriers

wait a certain time period before start the transmission of the identification data. As it is

seen in fig. 3, after receiving the ID request signal 191 there is a time delay between the

first time slot and the received signal 191, hence this time delay can also be referred as

common discrete delay period, since each data carrier has this delay before going to

the next step which is to wait for their slot number) and after that an extra time delays in

each time slot is waited (number of waiting time periods), and

response signal recognition means designed for recognizing a response signal given by

another data carrier (via slave stations having level comparators 210 which judges

whether the detected signal is from the another slave station; see col. 7, lines 43-59;

also see fig. 7) and for generating and delivering a response signal recognition signal

and wherein delivery decision means are provided which release or block a delivery of

the response signal in dependence on the response signal recognition signal and the

transmission start moment (via slave station not transmitting the response signal if the

other slave station is transmitting; see col. 4, lines 59-67 and col. 7, lines 60-67). Oodya

further discloses that all the circuit elements in each slave station may be provided on a

single IC chip (an integrated circuit) (see col. 8, lines 43-50).

As of claim 9 and 13, Ooya discloses a data carrier (via a slave station 201)

wherein the response signal generation means are formed by identification signal

generation means (via slave station transmitting the ID response signal to the master

station 101; see col. 5, lines 23-26).

As of claim 10 and 14, Ooya discloses a data carrier (via a slave station 201)

wherein the response signal recognition means are designed for recognizing a carrier

signal (via the slave station 201 receiving the modulated signal from the master station;

see col. 4, lines 10-14).

As of claim 11 and 15, Ooya discloses wherein the response signal recognition

means are designed for rccogni2ing a modulated carrier signal and for this purpose

comprise demodulation means which are designed for demodulating a modulated

carrier signal (via the slave station 201 comprising a demodulation unit 204 to

demodulate the modulated signal received from the master station 101; see col. 4, lines

15-19; also see fig. 2).

As of claim 16, all the definition explained in claim 1 above also apply to claim 16

and Ooya further discloses a method of inventorying data carrier which method

comprising the following steps:

choosing from a plurality of transmission start moments that are defined from a

predefined moment , transmission start moment for starting a transmission of a carrier

signal for the purpose of supplying data to a communication station during the

transmission of carrier signal wherein the data enable the inventory of the data carrier

(via the slave station 201 generating the time slot number and time delay using the time

number generation unit 207 before transmitting the ID response signal back to the

master station; see col. 6, lines 12-14), wherein each of the transmission start moments

results from a sum of a common selectable discrete time period and a number of

waiting time periods from the predefined moment, where the number of waiting time

periods is defined from the end of the common selectable discrete time period (Note:

from the figure 3 of Ooya it can be seen that Master station 101 transmits a signal 191

to the slave stations (301, 401, 501, 601) and then there is time delay (a common

selectable discrete time period) between the transmitted signal 191 and a first slot 1,

which is interpreted by the Examiner as common discrete time period, this time delay

can be selected by the person who programs the communication system of Ooya) and

after that time period each slave station wait until their slot number (number of waiting

time periods) to transmit its identification to the Master station; see fig. 3; also see col.

33-557). (Note: it is inherent in the transponder reader system that all the data carriers

wait a certain time period before start the transmission of the identification data. As it is

seen in fig. 3, after receiving the ID request signal 191 there is a time delay between the

first time slot and the received signal 191, hence this time delay can also be referred as

common discrete delay period, since each data carrier has this delay before going to

the next step which is to wait for their slot number) and after that an extra time delays in

each time slot is waited (number of waiting time periods), and

testing whether another data carrier is already transmitting a carrier signal after

predefined time and prior to chosen transmission start moment, and inhibiting the

starting of said transmission of said carrier signal at chosen transmission start moment

if the result of testing is positive (via the data detection unit 208 detecting if another

slave station is transmitting the ID response signal and inhibiting the transmission if the

there is another slave station transmitting the ID response signal; see col. 7, lines 9-15;

also see fig. 7).

As of claim 17, Ooya discloses a method comprising: starting the transmission of

carrier signal at the chosen transmission start moment if result of testing is negative (via

the control unit 202 transmitting the ID response signal if no other slave station is

transmitting the response signal; see col. 7, lines 16-21).

As of claim 18, Ooya discloses that the slave station transmits the modulated

signal back to the master station. Even thought not explicitly said but the slave station of

Ooya has to take into account transient phenomena because of the time it takes for the

electrical components like of modulation, demodulation and control circuits to move

when the voltage is applied to them and there natural switching behavior.

As of claim 19, Ooya discloses a method wherein the transmission start moment

is selected by a random principle (via generation of time numbers using a random

number generation circuit; see col. 6, liens 62-65).

As of claim 20, Ooya discloses a method wherein the number wherein the

numbers of selectable transmission start moments is greater than the number of data

carriers (Note: Ooya discloses that the number of time slots and time delay can be

freely selected, hence number of time slots and time delay can be greater than the

slave station 201; see col. 8, lines 40-42).

As of claim 22, Ooya discloses a method wherein the selected transmission start

moment is shifted in time by a selectable discrete delay period with respect to a

command signal end of a command signal given by the communication station (via time

number generation unit generating time delay in each time slot; see col. 4, lines 33-43).

As of claim 23, Ooya discloses a method wherein a data carrier that has given a

response signal cart be sot to an idle station by the communication station, in which idle

state no response signal is provided (via slave station not transmitting the response

signal after transmitting the ID response signal to the master station; see col. 5, lines39-

42).

Claim Rejections - 35 USC § 103

8.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically
> disclosed or described as set forth in section 102 of this title, if the
> differences between the subject matter sought to be patented and the prior
> art are such that the subject matter as a whole would have been obvious at
> the time the invention was made to a person having ordinary skill in the
> art to which said subject matter pertains. Patentability shall not be
> negatived by the manner in which the invention was made.

9.   Claims 5 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Ooya et al. (7,187,692).

As of claims 5 and 16, Ooya discloses that the master station 101 uses the

memory 015 and the control unit 102 to generate a request signal, and allow the

modulation unit 103 to modulate the generated request signal by the Amplitude Shift

Keying modulation 9see col. 3, lines 64-67). Ooys further discloses that the master

station 101 transmits commands with the data to read/write from/to the tag (see col. 4,

lines 18-24). So when the master station will transmits a modulated signal it will have to

have a carrier signal and inventory command (read/write command). Ooya discloses

that the slave station is a passive tag and uses the radio wave received from the master

station to generate power. It would have been obvious to one having ordinary skill in the

art at the time the invention was made to modify the system of Ooys to include the

function of having the duration of the inventory command being shorter than the

duration of the transmission of the carrier signal, since the carrier signal is also used to

power the tag, so the tag will be powered first using the carrier signal and then process

the data in the read/write command.

Response to Arguments

10.   Applicant's arguments filed 9/04/08 have been fully considered but they are not

persuasive. As of claim 1, applicant argues that Ooya does not disclose that "such that

each of the transmission start moments coincides with the beginning of one of the

waiting time periods". The Examiner respectfully disagrees.

11.   First the Examiner would like to point out that Examiner was not able to

understand, that how the transmission start moment coincides with the **beginning** of on

the waiting time period. Because looking at fig. 2, the transmission start moment t5=

Td+ 2Tw, so the transmission does not start at the start of the waiting time period but

after the number of waiting time period. This limitation is not defined in the specification.

For the purpose of examination the Examiner is interpreting the claims, that each of the

start moment coincides with the common selectable discrete time period and a number

of waiting time period.

Further, Ooya discloses that a master station transmit a carrier signal (signal 911; see

fig. 1), then each transponder waits a common selectable discrete time period (the time

period between the end of the carrier signal at the first time slot; see fig. 1), and then

transmit the response signal in generated time slot (which are referred as waiting time

period) (see col. 1, lines 59-67; also see fig. 1). So the response signal is transmitted

after the common selectable time period and a number of waiting time period. And since

the transponders are transmitting in their generated time slot, the transmission start

moments coincide with the beginning of one of the waiting time period.

Conclusion

12.   Applicant's amendment necessitated the new ground(s) of rejection presented in
this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP
§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37
CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE
MONTHS from the mailing date of this action. In the event a first reply is filed within
TWO MONTHS of the mailing date of this final action and the advisory action is not
mailed until after the end of the THREE-MONTH shortened statutory period, then the
shortened statutory period will expire on the date the advisory action is mailed, and any
extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to NABIL H. SYED whose telephone number is (571)270-3028. The examiner can normally be reached on M-F 7:30-5:00 alt Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Brian Zimmerman can be reached on (571)272-3059. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Nabil H Syed
Examiner
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N.S

/Brian A Zimmerman/
Supervisory Patent Examiner, Art Unit 2612